

Notice of Allowability

Application No.

10/534,275

Examiner

Daniel Lai

Applicant(s)

HOSHINO ET AL.

Art Unit

2617

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to amendment received on 3 26 2007.
2. ☒ The allowed claim(s) is/are 9-15.
3. ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☒ All b) ☐ Some* c) ☐ None of the:
 1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☒ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.
THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.

Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☐ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☒ Information Disclosure Statements (PTO/SB/08),
Paper No./Mail Date _____
4. ☐ Examiner's Comment Regarding Requirement for Deposit
of Biological Material
5. ☐ Notice of Informal Patent Application
6. ☐ Interview Summary (PTO-413),
Paper No./Mail Date _____
7. ☐ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other _____

REASONS FOR ALLOWANCE

Specification

The title of the invention is not descriptive. A new title is required that is clearly indicative of the invention to which the claims are directed.

The following title is suggested: "Communication terminal with directivity quality measurement apparatus".

Allowable Subject Matter

Claims 9-15 are allowed.

The following is a statement of reasons for the indication of allowable subject matter:

The prior arts of record fail to teach a communication terminal apparatus and method of reception quality reporting, comprising a reception quality measuring section that measures reception quality in a directivity of a quality decision signal using the quality decision signal included in a received signal; a directivity switching decision section that decides a switching timing at which directivities of packet data are switched based on directivity switching timing information reporting a directivity switching timing included in the received signal and instructs the reception quality measuring section to nullify the reception quality measured using the quality decision signal received in a period from a time a predetermined time ahead of the switching timing to the switching timing; and a transmission section that transmits reception quality information indicating the reception quality measured using the reception quality decision signal received at a timing other than the period from the time the predetermined time ahead of the switching timing to the switching timing.

Art Unit: 2617

EP 1205051 A1, hereafter EP'051 teaches a method of controlling directivity in a communication system to improve transmission efficiency comprising: a reception quality measuring section 155 that measure reception quality (col. 9, paragraph 0072); an array directivity switching determining section 251 that determines whether to change directivity at the time when a NACK signal is received (col. 10, paragraph 0075); a transmission section that transmits modulated transmission signal that includes reception quality information (col. 10, paragraph 0074). According to specification of EP '051 and different directivity modulation sections, signals transmitted from communication apparatus 200 to communication apparatus 250 are transmitted with directivity (Fig. 2). Also, when apparatus 250 transmits reception quality information, it is at a time other than the switching time because directivity will not be switched unless it receives directivity switching signal from apparatus 250 (col. 11, paragraph 0083). EP '051 teaches the directivity switching information (col. 10, paragraph 0075), but does not teach the directivity switching timing information. EP 0851609 A2, hereinafter EP'609 teaches a base station apparatus for communicating with high-speed and low speed communication spread spectrum mobile users with different directivities. EP '609 teaches a circuit which receives values of the delay time sent from the base station (col. 12, line 23-25). This provides timing information for a receiver to modulate signals with different directivities (col. 11, line 5-38). EP '609 also teaches that such scheme can conserve power consumption at the receiver (col. 12, line 17-19). Therefore, it would have been obvious to one having ordinary skill in the art at the time of the invention to switch directivity at proper time and hence minimizes power consumption at the receiver, as taught by EP '609.

Art Unit: 2617

Therefore, EP'051 and EP'609 disclose the reception quality with directivity switching decision section, however, failed to teach instructing the reception quality measuring section to nullify the reception quality measured using the quality decision signal received in a period from a time a predetermined time ahead of the switching timing to the switching timing.

Conclusion


Any inquiry concerning this communication or earlier communications from the examiner should be directed to Daniel Lai whose telephone number is (571) 270-1208. The examiner can normally be reached on Monday – Thursday, 9:00 a.m. – 4:00 p.m., EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nick Corsaro can be reached on (571) 272-7876. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

DL

D.L.


NICK CORSARO
ADVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600